

REMARKS

In the present amendment claims 1, 3 and 4 are amended and claims 15-16 are cancelled. Upon entry of the instant amendment, claims 1 and 3-14 will remain pending in the application, with claim 14 standing allowed, and claims 1 and 3-13 standing ready for further action on the merits. The amendments made herein to the claims do not incorporate new matter into the application as originally filed. For example, current claim 1 has been amended to recite that “70 % or more” of said (a) component does not substantially undergo breakdown”, which finds support at page 22 of the specification (last paragraph). Further, the amendment to claim 3 finds direct support in prior claim 15 (now cancelled) and the amendment to claim 4 finds support in prior claim 16 (now cancelled) and page 21, line 20 of the specification.

Allowable Subject Matter

Applicants appreciate the Examiner’s courtesy in indicating that claims 14-16 are allowable, except for depending on a rejected base claim. In the present amendment, the limitations of claim 15 are now recited in independent claim 3, so that it follows that independent claim 3 is now in condition for allowance (as is the portion of multiply dependent claim 5 that depends therefrom). Likewise, since the upper limit from claim 16 is now recited in claim 4, it also follows that independent claim 4 is now in condition for allowance (as is the portion of multiply dependent claim 5 that depends therefrom).

More particularly, in claim 3, it is now recited “wherein the agitation impellers have a Froude number of from 0.1 to 0.83” and in claim 4 it is now recited “wherein the agitation impellers have a Froude number of from 0.05 to 0.85”. In this respect, in the outstanding office action in paragraph

number “9.” (*see pages 8-9*) the Examiner remarks in support of allowing claims 14-16 that the Yamashita US ‘516 and Yamashita US ‘501 cited art teaches away from a Froude Number of less than 1, by teaching that compression will not be promoted (*see US ‘516, col. 7, lines 58-59*), and that blending efficiency becomes poor, thereby making it likely to produce granulated products with a broad granular distribution (*see US ‘501, col. 17, lines 37-40*). As such, it is submitted that instant claims 3-4, which recite upper limits for Froude Numbers of 0.83 and 0.85, respectively, are now in condition for allowance.

Examiner Interview

Applicants appreciate the Examiner’s courtesy in granting a personal interview at the USPTO in the matter of the present case on June 8, 2005. The Examiner’s summary of the interview as set forth in the Examiner Interview Summary form is correct with regard to the subject matter discussed in the Interview. It is noted that the Examiner’s comments were considered when amending claims as set forth herein, and when preparing the attached 37 CFR § 1.132 Declaration discussed below.

Enclosed 37 CFR § 1.132 Declaration of Mr. Teruo Kubota

Enclosed with the present reply is an unsigned 37 CFR § 1.132 declaration of Mr. Teruo Kubota. The Examiner is respectfully requested to review Mr. Kubota’s declaration at this time, as it contains comparative testing results therein that are material to a consideration of the patentability of the pending claims over the cited art references of Yamashita (US 5,468,516 and US 5,736,501) as they pertain to claim 1 and the pending claims that depend therefrom. A signed copy of Mr. Kubota’s declaration will be forwarded to the USPTO after the same has been received at the offices

of the undersigned. The fact that Mr. Kubota's declaration is unsigned does not take away from the ability of the same to evidence the patentability of the instant invention as claimed. *In re Soni*, 54 F.3d 746, 750, 34 USPQ2d 1684, 1687 (Fed. Cir. 1995).

For example, if a *prima facie* case of obviousness is established, the burden shifts to the applicant to come forward with arguments and/or evidence to rebut the *prima facie* case. Rebuttal evidence and arguments can be presented in the specification, *In re Soni*, 54 F.3d 746, 750, 34 USPQ2d 1684, 1687 (Fed. Cir. 1995), by counsel, *In re Chu*, 66 F.3d 292, 299, 36 USPQ2d 1089, 1094-95 (Fed. Cir. 1995), or by way of an affidavit or declaration under 37 CFR § 1.132, e.g., *Soni*, 54 F.3d at 750, 34 USPQ2d at 1687; *In re Piasecki*, 745 F.2d 1468, 1474, 223 USPQ 785, 789-90 (Fed. Cir. 1984). Office personnel should consider all rebuttal arguments and evidence presented by applicants. See, e.g., *In re Soni*, 54 F.3d 746, 750, 34 USPQ2d 1684, 1687 (Fed. Cir. 1995) (error not to consider evidence presented in the specification). Further, Office personnel should not evaluate rebuttal evidence for its "knockdown" value against the *prima facie* case, *Piasecki*, 745 F.2d at 1473, 223 USPQ at 788, or summarily dismiss it as not compelling or insufficient. If the evidence is deemed insufficient to rebut the *prima facie* case of obviousness, Office personnel should specifically set forth the facts and reasoning that justify this conclusion.

Claim Rejections Under 35 USC § 103

Claims 1, 3-9 and 11-13 have been rejected under 35 USC § 103(a) as being unpatentable over Yamashita US '516 (US 5,468,516). Claims 1 and 3-13 have also been rejected under 35 USC § 103(a) as being unpatentable over Yamashita US '501 (US 5,736,501). Reconsideration and withdrawal of each of these rejections is requested based upon the following considerations.

Incorporation of Earlier Remarks

In Applicants' prior response of October 29, 2003, starting at page 12, line 7 and continuing through page 17, line 12, Applicants remark upon the present invention and its advantages, as well as patentable distinctions over each of the cited Yamashita et al. US '516 and US '501 references. The Examiner is respectfully requested to review the remarks set forth in the earlier response of October 29, 2003 at pages 12-17 as noted above. Said remarks are incorporated herein by reference in their entirety.

Comments on Claims 3-4

Based on the Examiner's comments in paragraph "9." of the outstanding office action, it is believed that each of pending independent claims 3-4 is now in condition for allowance, as well as the portions of multiply dependent claim 5 that depend on claims 3-4. As such, reconsideration and withdraw of the outstanding rejections of claims 3-4 are requested at present based on the amendments made herein to such claims.

The Present Invention and Its Advantages

As recited in instant claim 1, the present invention is directed to a process for preparing detergent particles. In the processes step (I) a base particle ((a) component) is mixed with a surfactant component ((b) component) under mixing conditions such that 70% or more of the base particle ((a) component) does not substantially undergo breakdown, and wherein the base particle is obtained by spray-drying an aqueous slurry under the following conditions.

“... wherein a mixing operation is carried out by using a mixer comprising agitation impellers of which mixing impellers have a shape of a paddle, wherein the agitation impellers have a Froude number of from 0.5 to 4, provided where the mixer further comprises disintegration impellers, the mixing operation is carried out under mixing conditions so as not to substantially rotate the disintegration impellers....”

In the processes step (II), the mixture obtained in step (I) is mixed with a fine powder, with substantially maintaining the shape of the ((a) component) containing the ((b) component) to give detergent particles, wherein the detergent particles have a degree of particle growth of 1.3 or less, and a bulk density of 500 g/L or more. (*See claim 1.*)

Accordingly, by way of the present invention there is provided a process for preparing detergent particles in which (i) preparation steps are simplified, (ii) variations in the properties of the detergent particles against variations in the formulated amount of the surfactant composition can be suppressed, (iii) particles can be formulated in large amounts, and (iv) which detergent particles possess excellent flowability. More particularly, by the claimed inventive process, one can obtain detergent particles capable of having a large formulated amount of surfactant, through simplified preparation steps, which particles are excellent in dissolubility and excellent in exudation suppression and anti-caking properties.

Declaration Evidence of Unexpected Results

In Mr. Kubota's enclosed 37 CFR § 1.132 declaration, test results are set forth from tests using impellers having a shape of a paddle (*see the Table set forth in Mr. Kubota's declaration*). In the Table, “Example 1” corresponds to “Example 1” as set forth in the instant specification, and the

“Additional Test” corresponds to “Example 1” of the present invention but wherein the Froude Number is 3.8 (*in view of the instantly claimed upper range limit of 4*).

As to the cited Yamashita US ‘516 reference, a test was conducted based on Example 9 thereof, and a follow-up test was done based on Example 13 thereof, which Examples are similar to the present invention in the use of spray-dried particles as base particles.

As to the cited Yamashita US ‘501 reference, a test was conducted based on Example 11 thereof.

In Mr. Kubota’s declaration, the tests were conducted in the same manner and under the same conditions described in Example 1 of the present application, or Yamashita US ‘516, or Yamashita US ‘501, as appropriate. The “Additional Test” corresponding to the instant invention was conducted under the same conditions as Example 1 of the present invention, except for the Froude Number being 3.8.

As shown in the Table of Mr. Kubota’s enclosed 37 CFR § 1.132 declaration the degree of particle growth is quite different between the present invention (*see Example 1 and “Additional Test”*) and the comparative Examples corresponding to Yamashita US ‘516 and Yamashita US ‘501. In this respect, for the Examiner’s convenience, a copy of the Table set forth in Mr. Kubota’s attached declaration is set forth below.

TABLE

	Present Invention		Yamashita US '516		Yamashita US '501
	<i>Example 1</i>	<i>Additional Test</i>	<i>Example 9</i>	<i>Example 13</i>	<i>Example 11</i>
Base Particle [μm]	225	225	250	267	253
Detergent Particle [μm]	245	263	405	402	380
Degree of Particle Growth [—]	1.09	1.17	1.62	1.51	1.50
Dissolution Rate [%]	98	96	74	76	78
Froude Number					
Agitation Impeller [—]	1.0	3.8	6.7	2.3	3.8
Disintegration Impeller [—]	0	0	800	800	800

As seen in the above Table, only with the present invention is there achieved both a low degree of particle growth in combination with a high dissolution rate. This is true for each of “Example 1” and the “Additional Test”. In contrast to the particles of the present invention, the particles prepared according to the teachings of the cited Yamashita US '516 and Yamashita US '501 references possessed much higher degrees of particle growth and had a lower degree of dissolution. Such comparative test results show and evidence that the present invention as recited in claim 1 has unexpected and advantageous results associated therewith that would not have been obvious to one of ordinary skill in the art at the time of the discovery of the present invention.

Accordingly, because neither of the cited Yamashita '516 nor Yamashita '501 references provides any teachings with regard to controlling the degree of particle growth, or provides any teaching or disclosure that would allow one of ordinary skill in the art to arrive at the instant invention

as recited in pending claim 1, or any of pending claims 5-14 that depend therefrom, including all of the limitations thereof, it follows that said references cannot stand as a proper basis for rejecting any of Applicants' claims 1 and 5-13 under 35 USC § 103 for obviousness, whether such Yamashita '516 and '501 references are considered singularly or in combination.

Obviousness-Type Double Patenting Rejection

Claims 1 and 3-13 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 and 3 of U.S. Patent No. 6,602,846 in view of Yamashita US '501.

Reconsideration and withdraw of this obviousness-type double patenting rejection is respectfully requested based on remarks presented above and the comparative testing that is set forth in the enclosed declaration of Mr. Kubota, showing that the present invention as recited in claim 1 is patentably distinct from and non-obvious over the disclosure of the cited Yamashita US '501 reference.

Again, as seen in the above Table from Mr. Kubota's declaration, with the present invention as recited in claim 1 there is achieved both a low degree of particle growth in combination with a high dissolution rate. In contrast, the particles prepared according to the teachings of the cited Yamashita US '501 references possessed much higher degrees of particle growth and had a lower degree of dissolution. Such comparative test results show and evidence that the present invention as recited in claim 1 has unexpected and advantageous results associated therewith that would not have been obvious to one of ordinary skill in the art at the time of the discovery of the present invention upon considering the disclosure of the Yamashita US '501 reference.

Regarding claims 3-4, these claims are also non-obvious over the cited Yamashita US '501 reference due to the recitation therein of Froude Numbers of less than 1.

CONCLUSION

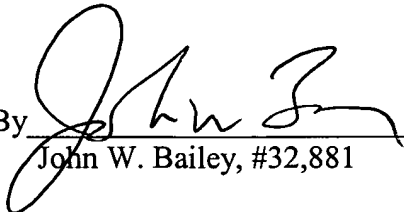
Based upon the amendments and remarks presented herein, the Examiner is respectfully requested to issue a Notice of Allowance, clearly indicating that each of the present claims 1 and 3-14 are allowable at present.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact John W. Bailey (Reg. No. 32,881) at the telephone number below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

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By 
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Enclosure: 37 CFR § 1.132 Declaration of Teruo Kubota (Unsigned)